



Substitute Sheet

ABSTRACT

A fabric and tape laying machine operable with: (a) a robot including programmable control means, (b) a supply roll containing a continuous strip of composite tape or fabric, and (c) a mold of predetermined surface shape relative to x, y and z coordinates, including:

- a. a chassis mountable to and movable by the robot,
- b. a contact roller module mounted on the chassis and spaced apart and downstream from the supply roll and adapted to receive tape from the supply roll, the contact roller module being moved along the programmed path by the chassis,
- c. a tape cutting unit carried by the chassis and situated between the supply roll and the contact roller module, and
- d. a suspension system for dynamically energizing the contact roller module to have its rollers apply a predetermined level of force downward on the tape during the lay-up process.